# TCT
## Compact, rugged, precise

**TEMPERATURE SENSORS**

**SICK**
Sensor Intelligence.

## Technical data overview

| | |
|---|---|
| **Measuring range** | –50 °C +150 °C<br>–50 °C +250 °C |
| **Accuracy of sensor element** | Class A according to IEC 60751 |
| **Accuracy of the opt. measuring transducer** | ≤ ± 1,0 % of span |
| **Signal outputs and maximum ohmic load $R_A$** | Pt100, 4-wire, 4 mA ... 20 mA, 2-wire ($R_A ≤ (L^+ – 9 V)$ / 0.023 A [Ohm]) |
| **Electrical connection** | Round connector M12 x 1, 4-pin, IP67, L-connector (DIN EN 175301-803 A), 4 pin,IP 65 |

CE

## Product description

The TCT is a universal Pt100 resistance thermometer in a compact stainless steel housing for temperature measurement in liquids and gases. Available with a variety of process connections and insertion lengths, it can be adapted to specific applications. The TCT is available with or without compression fittings and with various connection threads, for example. Designs with protective pipe can also be supplied. The Pt100 element is located inside the tip of the probe. Wetted parts are made from high-grade stainless steel 1.4571. The TCT is available with Pt100 output or an integrated measuring transducer with 4 mA ... 20 mA output signal.

## At a glance

• Pt100 element, accuracy class A according to IEC 60751
• Measuring ranges –50 °C ... +150 °C and –50 °C ... +250 °C
• Wetted parts made from corrosion resistant stainless steel 1.4571
• Various mechanical adaptations and insertion lengths, also available with thermowell
• Pt100 (4-wire) or 4 mA ... 20 mA (2-wire)
• Circular connector M12 x 1 (IP 67) or L-connector according to DIN EN 175301-803 A (IP 65)

## Your benefits

• Reliable operation through rugged design and high-quality materials
• Very good long-term stability, accuracy and linearity
• Quick and safe installation
• Convenient system integration through compact dimensions and industry-standard output signals
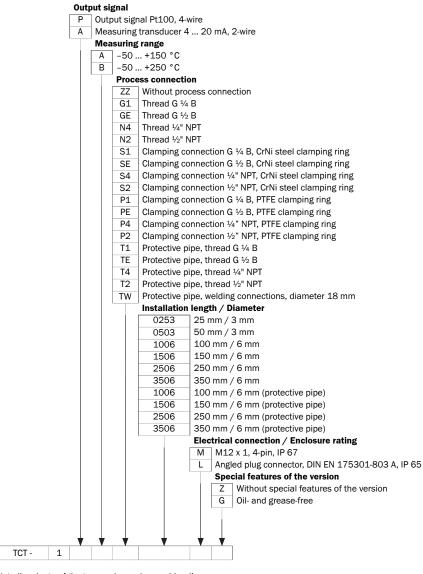• Optimal solutions for individual requirements due to versatile configurability

## Fields of application

• Temperature measurement of liquids and gases in industrial applications
• Monitoring of cooling water temperatures
• Monitoring of hydraulic oil temperatures
• Tank and tote construction
• Machine and plant engineering
• Heating systems

## Type code

Other models and accessories ➜ www.sick.com/TCT

## Type code

**Output signal**

| P | Output signal Pt100, 4-wire |
|---|---|
| A | Measuring transducer 4 ... 20 mA, 2-wire |

**Measuring range**

| A | –50 ... +150 °C |
|---|---|
| B | –50 ... +250 °C |

**Process connection**

| ZZ | Without process connection |
|---|---|
| G1 | Thread G ¼ B |
| GE | Thread G ½ B |
| N4 | Thread ¼" NPT |
| N2 | Thread ½" NPT |
| S1 | Clamping connection G ¼ B, CrNi steel clamping ring |
| SE | Clamping connection G ½ B, CrNi steel clamping ring |
| S4 | Clamping connection ¼" NPT, CrNi steel clamping ring |
| S2 | Clamping connection ½" NPT, CrNi steel clamping ring |
| P1 | Clamping connection G ¼ B, PTFE clamping ring |
| PE | Clamping connection G ½ B, PTFE clamping ring |
| P4 | Clamping connection ¼" NPT, PTFE clamping ring |
| P2 | Clamping connection ½" NPT, PTFE clamping ring |
| T1 | Protective pipe, thread G ¼ B |
| TE | Protective pipe, thread G ½ B |
| T4 | Protective pipe, thread ¼" NPT |
| T2 | Protective pipe, thread ½" NPT |
| TW | Protective pipe, welding connections, diameter 18 mm |

**Installation length / Diameter**

| 0253 | 25 mm / 3 mm |
|---|---|
| 0503 | 50 mm / 3 mm |
| 1006 | 100 mm / 6 mm |
| 1506 | 150 mm / 6 mm |
| 2506 | 250 mm / 6 mm |
| 3506 | 350 mm / 6 mm |
| 1006 | 100 mm / 6 mm (protective pipe) |
| 1506 | 150 mm / 6 mm (protective pipe) |
| 2506 | 250 mm / 6 mm (protective pipe) |
| 3506 | 350 mm / 6 mm (protective pipe) |

**Electrical connection / Enclosure rating**

| M | M12 x 1, 4-pin, IP 67 |
|---|---|
| L | Angled plug connector, DIN EN 175301-803 A, IP 65 |

**Special features of the version**

| Z | Without special features of the version |
|---|---|
| G | Oil- and grease-free |

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Not all variants of the type code can be combined!

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

**For us, that is "Sensor Intelligence."**

## WORLDWIDE PRESENCE:

Contacts and other locations –**www.sick.com**

SICK AG | Waldkirch | Germany | www.sick.com

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